

Rebecca J. Dulin Senior Counsel

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October 31, 2017

The Honorable Jocelyn G. Boyd Chief Clerk/Administrator Public Service Commission of South Carolina 101 Executive Center Drive, Suite 100 Columbia SC 29210

Re: Duke Energy Progress, LLC – Monthly Fuel Report

Docket No. 2006-176-E

Dear Ms. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is Duke Energy Progress, LLC's Monthly Fuel Report in Docket No. 2006-176-E for the month of September 2017.

Should you have any questions regarding this matter, please do not hesitate to contact me at 803.988.7130.

Sincerely,

Rebecca J. Dulin

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**Enclosures** 

cc: Service list

### Duke Energy Progress Summary of Monthly Fuel Report

Schedule 1

Line No.	Item	September 2017
1	Fuel and Fuel-related Costs excluding DERP incremental costs \$	117,892,363
	MWH sales:	
2	Total System Sales	6,028,255
3	Less intersystem sales	671,838
4	Total sales less intersystem sales	5,356,417
5	Total fuel and fuel-related costs (¢/KWH) (Line 1/Line 4)	2.2010
6	Current fuel & fuel-related cost component (¢/KWH) (per Schedule 4)	2.5439
	Generation Mix (MWH):	
	Fossil (By Primary Fuel Type):	
7	Coal	774,802
8	Oil	4,206
9	Natural Gas - Combustion Turbine	154,083
10	Natural Gas - Combined Cycle	1,709,203
11	Total Fossil	2,642,294
12	Nuclear	2,558,718
13	Hydro - Conventional	27,257
14	Solar Distributed Generation	21,623
15	Total MWH generation	5,249,892

Note: Detail amounts may not add to totals shown due to rounding.

# Duke Energy Progress Details of Fuel and Fuel-Related Costs

Description	Se	ptember 2017
Fuel and Fuel-Related Costs:		
Steam Generation - Account 501		
0501110 coal consumed - steam	\$	25,453,397
0501310 fuel oil consumed - steam		636,798
Total Steam Generation - Account 501		26,090,195
Nuclear Generation - Account 518		
0518100 burnup of owned fuel		17,617,449
Other Generation - Account 547		
0547000 natural gas consumed - Combustion Turbine		6,269,634
0547000 natural gas consumed - Combined Cycle		48,375,681
0547200 fuel oil consumed		145,090
Total Other Generation - Account 547		54,790,405
Purchased Power and Net Interchange - Account 555		
Fuel and fuel-related component of purchased power		29,155,252
Fuel and fuel-related component of DERP purchases		-
PURPA purchased power capacity		6,928,942
DERP purchased power capacity		-
Total Purchased Power and Net Interchange - Account 555		36,084,194
Less fuel and fuel-related costs recovered through intersystem sales - Account 447		17,535,977
Total Costs Included in Base Fuel Component	\$	117,046,266
Environmental Costs		
0509030, 0509212, 0557451 emission allowance expense	\$	4,511
0502020, 0502030, 0502040, 0502080, 0502090, 0548020 reagents expense		1,214,712
Emission Allowance Gains		-
Less reagents expense recovered through intersystem sales - Account 447		321,526
Less emissions expense recovered through intersystem sales - Account 447		51,600
Total Costs Included in Environmental Component		846,097
Fuel and Fuel-related Costs excluding DERP incremental costs		117,892,363
DERP Incremental Costs		157,627
Total Fuel and Fuel-related Costs	\$	118,049,990

Notes: Detail amounts may not add to totals shown due to rounding.

## DUKE ENERGY PROGRESS PURCHASED POWER AND INTERCHANGE SOUTH CAROLINA

SEPTEMBER 2017

Schedule 3, Purchases Page 1 of 2

Purchased Power	Total	Capacity	Non-capacity		
Marketers, Utilities, Other	\$	\$	mWh	Fuel \$	Non-fuel \$
Broad River Energy, LLC.	\$ 7,164,362	2 \$ 5,277,962	27,567	\$ 1,886,400	_
City of Fayetteville	953,024	926,675	2,315	26,349	-
Haywood EMC	29,850	29,850	-	-	-
NCEMC	2,618,968	3 2,079,773	14,054	539,195	-
PJM Interconnection, LLC.	90,796	-	4,015	90,796	-
Southern Company Services	3,741,874	661,752	94,419	3,080,122	-
DE Carolinas - Native Load Transfer	2,432,115	-	63,894	1,681,573	\$ 750,542
DE Carolinas - Native Load Transfer Benefit	79,540	-	-	79,540	-
DE Carolinas - Fees	129,445	-	-	129,445	-
Energy Imbalance	1,581		51	949	632
Generation Imbalance	310	)	23	189	121
	\$ 17,241,865	\$ 8,976,012	206,338	\$ 7,514,558	\$ 751,295
Act 236 PURPA Purchases					
Renewable Energy	20,717,018	-	280,998	20,717,018	-
Other Qualifying Facilities	7,852,618	-	104,268	7,852,618	-
	\$ 28,569,636	\$ -	385,266	\$ 28,569,636	\$ -
Total Purchased Power	\$ 45,811,501	\$ 8,976,012	591,604	\$ 36,084,194	\$ 751,295

NOTE: Detail amounts may not add to totals shown due to rounding.

### DUKE ENERGY PROGRESS INTERSYSTEM SALES\* SOUTH CAROLINA

SEPTEMBER 2017

Schedule 3, Sales Page 2 of 2

	Total	Capacity	Non-capacity			
Sales	\$	\$	mWh	Fuel \$	Non-fuel \$	
Utilities:						
SC Electric & Gas - Emergency	\$ (19,964)	-	- \$	(10)	\$ (19,954)	
Market Based:						
NCEMC Purchase Power Agreement	1,131,717	652,500	12,531	378,418	100,799	
PJM Interconnection, LLC.	2,384,723	-	25,530	908,859	1,475,864	
Other:						
DE Carolinas - Native Load Transfer Benefit	1,539,842	-	-	1,539,842	_	
DE Carolinas - Native Load Transfer	15,844,504	-	633,764	15,081,994	762,510	
Generation Imbalance	· · · -	-	13	-	-	
Total Intersystem Sales	\$ 20,880,822	\$ 652,500	671,838 \$	17,909,103	\$ 2,319,219	

<sup>\*</sup> Sales for resale other than native load priority.

NOTE: Detail amounts may not add to totals shown due to rounding.

				General Service			
Line No.			Total Residential	Non-Demand	Demand	Lighting	Total
1	Actual System kWh sales	Input					5,356,417,019
2	DERP Net Metered kWh generation	Input					524,433
3	Adjusted System kWh sales	L1 + L2					5,356,941,452
4	Actual S.C. Retail kWh sales	Input	184,493,017	29,789,139	309,696,576	6,762,845	530,741,577
5	DERP Net Metered kWh generation	Input	162,633	6,582	355,219		524,433
6	Adjusted S.C. Retail kWh sales	L4 + L5	184,655,650	29,795,721	310,051,795	6,762,845	531,266,010
7	Actual S.C. Demand units (kw)	L32 / 31b *100			699,229		
Base fuel o	component of recovery - non-capacity						
8	Incurred System base fuel - non-capacity expense	Input					\$98,590,824
9	Eliminate avoided fuel benefit of S.C. net metering  Adjusted Incurred System base fuel - non-capacity expense	Input L8 + L9					\$16,796 \$98,607,620
10 11	Adjusted Incurred System base fuel - non-capacity rate (¢/kWh)	L0 + L9 L10 / L3 * 100					\$90,007,020 1.841
12	S.C. Retail portion of adjusted incurred system expense	L6 * L11 / 100	\$3,399,039	\$548,463	\$5,707,262	\$124,487	\$9,779,251
13	Assign 100 % of Avoided Fuel Benefit of S.C net metering	Input	(\$9,001)	(\$908)	(\$6,887)	\$0	(\$16,796)
14	S.C. Retail portion of incurred system expense	L12 + L13	\$3,390,038	\$547,555	\$5,700,375	\$124,487	\$9,762,455
15	Billed base fuel - non-capacity rate (¢/kWh) - Note 1	Input	2.210	2.210	2.210	2.210	2.210
16	Billed base fuel - non-capacity revenue	L4 * L15 /100	\$4,077,233	\$658,340	\$6,844,294	\$149,459	\$11,729,326
17	DERP NEM incentive - fuel component	Input	(\$2,509)	(\$253)	(\$1,920)	\$0	(\$4,682)
18	Adjusted S.C. billed base fuel - non-capacity revenue	L16 + L17	\$4,074,724	\$658,087	\$6,842,374	\$149,459	\$11,724,644
19	S.C. base fuel - non-capacity (over)/under recovery [See footnote]	L18 - L14	(\$684,686)	(\$110,532)	(\$1,141,999)	(\$24,972)	(\$1,962,189)
20	Adjustment - Economic Purchases	Input	\$0	\$0	\$0	\$0	\$0
21	Total S.C. base fuel - non-capacity (over)/under recovery [See footnote]	L19 + L20	(\$684,686)	(\$110,532)	(\$1,141,999)	(\$24,972)	(\$1,962,189)
Base fuel o	component of recovery - capacity						
22a	Incurred base fuel - capacity rates by class (¢/kWh)	L23 / L4 * 100	0.531	0.332			
22b	Incurred base fuel - capacity rate (¢/kW)	L23 / L7 * 100			107		
23	Incurred S.C. base fuel - capacity expense	Input	\$980,008	\$98,871	749,782.00		\$1,828,661
24a	Billed base fuel - capacity rates by class (¢/kWh)	Input	0.471	0.371			
24b	Billed base fuel - capacity rate (¢/kW)	Input	40/0/00	4440.540	96	40	44 (54 000
25	Billed S.C. base fuel - capacity revenue	L24a * L4 /100	\$869,638	\$110,518		\$0	\$1,651,983
26 27	S.C. base fuel - capacity (over)/under recovery [See footnote]  Adjustment	L25 - L23 Input	\$110,370 \$0	(\$11,647) \$0	77,955.00 \$0	\$0 \$0	\$176,678 \$0
28	Total S.C. base fuel - capacity (over)/under recovery [See footnote]	L26 + L27	\$110,370	(\$11,647)	\$77,955	\$0	\$176,678
Environmo	ental component of recovery						
29a	Incurred environmental rates by class (¢/kWh)	L30 / L4 * 100	0.024	0.015			
29b	Incurred environmental rate (¢/kW)	L30 / L7 * 100	0.021	0.010	5		
30	Incurred S.C. environmental expense	Input	\$44,929	\$4,533	\$34,374		\$83,836
31a	Billed environmental rates by class (¢/kWh)	Input	0.035	0.024			
31b	Billed environmental rate (¢/kW)	Input			7		
32	Billed S.C. environmental revenue	L31a * L4 /100	\$64,078	\$7,149	\$ 48,946		\$120,173
33	S.C. environmental (over)/under recovery [See footnote]	L32 - L30	(\$19,149)	(\$2,616)	(\$14,572)	\$0	(\$36,337)
34 35	Adjustment Total S.C. environmental (over)/under recovery [See footnote]	Input L33 + L34	\$0 (\$19,149)	\$0 (\$2,616)	\$0 (\$14,572)	\$0 <b>\$0</b>	\$0 (\$36,337)
30	Total 3.C. environmental (over)/under recovery [See loothole]	L33 + L34	(\$17,147)	(\$2,010)	(\$14,372)	ΦО	(\$30,337)
Distributed	Energy Resource Program component of recovery: avoided costs						
36a	Incurred S.C. DERP avoided cost rates by class (¢/kWh)	L37 / L4 * 100	0.000	0.000			
36b	Incurred S.C. DERP avoided cost rates by class (¢/kW)	L37 / L7 * 100			0.000		40
37	Incurred S.C. DERP avoided cost expense	Input	-	-	-		\$0
38a 38h	Billed S.C. DERP avoided cost rates by class (¢/kWh)  Billed S.C. DERP avoided cost rates by class (¢/kWh)	Input	0.000	0.000	0.000		
38b 39	Billed S.C. DERP avoided cost rates by class (¢/kW) Billed S.C. DERP avoided cost revenue	Input L38a * L4 /100	\$0	\$0	\$0		\$0
39 40	S.C. DERP avoided cost (over)/under recovery [See footnote]	L39 - L37	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0
40	Adjustment	Input	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
42	Total S.C. DERP avoided cost (over)/under recovery [See footnote]	L40 + L41	\$0	\$0	\$0	\$0	\$0
	Total (avor) (under recovery [Con featnets]	101 - 100 - 105 - 140	<b></b>		4		
43	Total (over)/under recovery [See footnote]	L21 + L28 + L35 + L42	(\$593,465)	(\$124,795)	(\$1,078,616)	(\$24,972)	(\$1,821,848)

### Duke Energy Progress (Over) / Under Recovery of Fuel Costs September 2017

Schedule 4 Page 2 of 3

Year	201	7.	20	۱1	ς
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			General Service			
Cumulative (over) / under recovery - BASE FUEL NON-CAPACITY	Cumulative	Total Residential	Non-Demand	Demand	Lighting	Total
_/2 Balance ending February 2017	6,872,181					
March 2017 - actual	9,008,686	\$763,399	\$98,306	\$1,239,859	\$34,941	\$2,136,505
April 2017 - actual	10,494,432	\$426,888	\$62,439	\$973,844	\$22,575	\$1,485,746
May 2017 - actual	9,808,868	(\$173,333)	(\$27,502)	(\$475,412)	(\$9,317)	(\$685,564)
June 2017 - actual	11,236,626	\$488,131	\$74,799	\$844,641	\$20,187	\$1,427,758
July 2017 - actual	11,772,725	\$172,369	\$25,506	\$332,436	\$5,788	\$536,099
August 2017 - actual	11,986,788	\$72,808	\$10,890	\$127,812	\$2,553	\$214,063
September 2017 - actual	10,024,599	(\$684,686)	(\$110,532)	(\$1,141,999)	(\$24,972)	(\$1,962,189)
October 2017 - forecast	8,167,555	(\$538,620)	(\$79,463)	(\$1,209,130)	(\$29,831)	(\$1,857,044)
November 2017 - forecast	6,687,255	(\$431,594)	(\$62,582)	(\$962,457)	(\$23,667)	(\$1,480,300)
December 2017 - forecast	6,517,869	(\$67,692)	(\$6,310)	(\$93,035)	(\$2,349)	(\$169,386)
January 2018 - forecast	6,355,245	(\$68,637)	(\$6,015)	(\$85,851)	(\$2,121)	(\$162,624)
February 2018 - forecast	5,169,597	(\$469,517)	(\$43,457)	(\$656,565)	(\$16,109)	(\$1,185,648)
March 2018 - forecast	4,888,769	(\$101,021)	(\$11,065)	(\$164,738)	(\$4,004)	(\$280,828)
April 2018 - forecast	3,664,828	(\$365,358)	(\$51,469)	(\$787,818)	(\$19,296)	(\$1,223,941)
May 2018 - forecast	2,605,518	(\$299,148)	(\$47,577)	(\$695,757)	(\$16,828)	(\$1,059,310)
June 2018 - forecast	2,241,897	(\$113,222)	(\$16,138)	(\$228,709)	(\$5,552)	(\$363,621)

### Year 2017-2018

1 Cai 2017-2010						
			General Service			
Cumulative (over) / under recovery - BASE FUEL CAPACITY	Cumulative	Total Residential	Non-Demand	Demand	Lighting	Total
_/2 Balance ending February 2017	893,261		•			
March 2017 - actual	806,670	(\$56,692)	(\$2,999)	(\$26,900)	\$0	(\$86,591)
April 2017 - actual	855,256	\$34,522	\$2,742	\$11,322	\$0	\$48,586
May 2017 - actual	863,837	\$16,521	(\$860)	(\$7,080)	\$0	\$8,581
June 2017 - actual	1,093,070	\$111,106	\$8,714	\$109,413	\$0	\$229,233
July 2017 - actual	1,329,570	\$92,732	(\$6,332)	\$150,100	\$0	\$236,500
August 2017 - actual	1,544,702	\$102,543	(\$7,486)	\$120,075	\$0	\$215,132
September 2017 - actual	1,721,380	\$110,370	(\$11,647)	\$77,955	\$0	\$176,678
October 2017 - forecast	2,071,971	\$189,232	\$9,246	\$152,113	\$0	\$350,591
November 2017 - forecast	2,198,335	\$119,890	\$4,033	\$2,441	\$0	\$126,364
December 2017 - forecast	1,780,878	(\$257,053)	\$170	(\$160,574)	\$0	(\$417,457)
January 2018 - forecast	1,336,496	(\$456,151)	(\$7,429)	\$19,198	\$0	(\$444,382)
February 2018 - forecast	978,287	(\$329,708)	(\$2,380)	(\$26,121)	\$0	(\$358,209)
March 2018 - forecast	933,389	(\$34,488)	\$9,875	(\$20,285)	\$0	(\$44,898)
April 2018 - forecast	1,185,068	\$171,405	\$10,905	\$69,369	\$0	\$251,679
May 2018 - forecast	1,454,700	\$212,728	\$6,686	\$50,218	\$0	\$269,632
June 2018 - forecast	1,340,498	\$37,158	(\$4,668)	(\$146,692)	\$0	(\$114,202)

### Year 2017-2018

			General Service			
Cumulative (over) / under recovery - ENVIRONMENTAL	Cumulative	Total Residential	Non-Demand	Demand	Lighting	Total
_/2 Balance ending February 2017	(618,034)		•			
March 2017 - actual	(633,513)	(\$13,791)	(\$1,056)	(\$632)	\$0	(\$15,479)
April 2017 - actual	(682,896)	(\$27,527)	(\$3,223)	(\$18,633)	\$0	(\$49,383)
May 2017 - actual	(718,603)	(\$19,646)	(\$2,877)	(\$13,184)	\$0	(\$35,707)
June 2017 - actual	(729,460)	(\$12,726)	(\$2,238)	\$4,107	\$0	(\$10,857)
July 2017 - actual	(639,166)	\$45,068	\$4,415	\$40,811	\$0	\$90,294
August 2017 - actual	(570,303)	\$35,153	\$3,230	\$30,480	\$0	\$68,863
September 2017 - actual	(606,640)	(\$19,149)	(\$2,616)	(\$14,572)	\$0	(\$36,337)
October 2017 - forecast	(607,390)	(\$859)	(\$91)	\$200	\$0	(\$750)
November 2017 - forecast	(644,042)	(\$16,393)	(\$1,576)	(\$18,683)	\$0	(\$36,652)
December 2017 - forecast	(583,263)	\$29,591	\$5,498	\$25,690	\$0	\$60,779
January 2018 - forecast	(420,468)	\$70,783	\$10,688	\$81,324	\$0	\$162,795
February 2018 - forecast	(288,203)	\$64,264	\$8,569	\$59,432	\$0	\$132,265
March 2018 - forecast	(249,291)	\$51,803	(\$148)	(\$12,743)	\$0	\$38,912
April 2018 - forecast	(228,774)	\$41,584	(\$1,772)	(\$19,295)	\$0	\$20,517
May 2018 - forecast	(209,920)	\$37,681	(\$1,606)	(\$17,221)	\$0	\$18,854
June 2018 - forecast	(124,512)	\$47,988	\$5,962	\$31,458	\$0	\$85,408

			General Service			
Cumulative (over) / under recovery - DERP AVOIDED COSTS	Cumulative	Total Residential	Non-Demand	Demand	Lighting	Total
_/2 Balance ending February 2017	-					
March 2017 - actual	0	\$0	\$0	\$0	\$0	\$0
April 2017 - actual	0	\$0	\$0	\$0	\$0	\$0
May 2017 - actual	0	\$0	\$0	\$0	\$0	\$0
June 2017 - actual	252	\$135	\$14	\$103	\$0	\$252
July 2017 - actual	252	\$0	\$0	\$0	\$0	\$0
August 2017 - actual	252	\$0	\$0	\$0	\$0	\$0
September 2017 - actual	252	\$0	\$0	\$0	\$0	\$0
October 2017 - forecast	252	\$0	\$0	\$0	\$0	\$0
November 2017 - forecast	252	\$0	\$0	\$0	\$0	\$0
December 2017 - forecast	252	\$0	\$0	\$0	\$0	\$0
January 2018 - forecast	252	\$0	\$0	\$0	\$0	\$0
February 2018 - forecast	252	\$0	\$0	\$0	\$0	\$0
March 2018 - forecast	252	\$0	\$0	\$0	\$0	\$0
April 2018 - forecast	252	\$0	\$0	\$0	\$0	\$0
May 2018 - forecast	252	\$0	\$0	\$0	\$0	\$0
June 2018 - forecast	252	\$0	\$0	\$0	\$0	\$0

### **Duke Energy Progress** (Over) / Under Recovery of Fuel Costs September 2017

Line No.			Residential	Commercial	Industrial	Total
Distributed	Energy Resource Program component of recovery: incremental costs		-			
44	Incurred S.C. DERP incremental expense	Input	\$84,475	\$43,354	\$29,798	\$157,627
45	Billed S.C. DERP incremental rates by account (\$/account)	Input	1.00	2.88	99.56	
46	Billed S.C. DERP incremental revenue	Input	\$136,062	\$92,501	\$25,462	\$254,025
47	S.C. DERP incremental (over)/under recovery [See footnote]	L44 - L46	(\$51,587)	(\$49,147)	\$4,336	(\$96,398)
48	Adjustment	Input	\$0	\$0	\$0	\$0
49	Total S.C. DERP incremental (over)/under recovery [See footnote]	L47 + L48	(\$51,587)	(\$49,147)	\$4,336	(\$96,398)

Year 2017-2018					
Cumulative (over) / under recovery	Cumulative	Residential	Commercial	Industrial	Total
_/2 Balance ending February 2017	391,293	*	-	•	
March 2017 - actual	371,761	(\$11,829)	(\$3,912)	(\$3,791)	(\$19,532)
April 2017 - actual	379,969	\$3,069	\$3,581	\$1,558	\$8,208
May 2017 - actual	399,488	\$8,882	\$6,936	\$3,701	\$19,519
June 2017 - actual	460,764	\$31,063	\$17,415	\$12,798	\$61,276
July 2017 - actual	325,094	(\$72,539)	(\$59,779)	(\$3,352)	(\$135,670)
August 2017 - actual	196,111	(\$68,903)	(\$57,810)	(\$2,270)	(\$128,983)
September 2017 - actual	99,713	(\$51,587)	(\$49,147)	\$4,336	(\$96,398)
October 2017 - forecast	117,425	\$5,777	(\$12,855)	\$24,790	\$17,712
November 2017 - forecast	189,290	\$34,931	\$2,010	\$34,924	\$71,865
December 2017 - forecast	277,531	\$43,796	\$6,368	\$38,077	\$88,241
January 2018 - forecast	297,948	\$8,143	(\$13,008)	\$25,282	\$20,417
February 2018 - forecast	317,684	\$7,658	(\$13,129)	\$25,207	\$19,736
March 2018 - forecast	337,129	\$7,259	(\$13,103)	\$25,289	\$19,445
April 2018 - forecast	356,360	\$7,105	(\$13,043)	\$25,169	\$19,231
May 2018 - forecast	374,968	\$6,826	(\$13,347)	\$25,129	\$18,608
June 2018 - forecast	393,291	\$6,634	(\$13,399)	\$25,088	\$18,323

### Notes:

Detail amounts may not recalculate due to percentages presented as rounded.

Presentation of over or under collected amounts reflects a regulatory asset or liability. Over collections, or regulatory liabilities, are shown as negative amounts.

Under collections, or regulatory assets, are shown as positive amounts.

\_/1 Total residential billed fuel rate is a composite rate reflecting the approved residential rate of 2.246 and RECD 5% discount.

\_/2 February 2017 ending balance reflects total adjustments of \$(129,849) pursuant to the docket no. 2017-1-E directive.

Description	Weatherspoon CT	Lee CC	Sutton CC/CT	Robinson Nuclear	Asheville Steam	Asheville CT	Roxboro Steam	Mayo Steam
Cost of Fuel Purchased (\$)					<b>3333</b>			
Coal	_	_	_	_	\$2,827,707	_	\$17,285,861	\$7,606,882
Oil	_	_	(877,661)	_	295	_	852,236	207,037
	-	16 150 707		_	293		032,230	207,037
Gas - CC	-	16,153,737	13,246,464	-	-	-	-	-
Gas - CT	23	<u> </u>	556,593	-	-	862,838	-	<u> </u>
Total	\$23	\$16,153,737	\$12,925,396	-	\$2,828,002	\$862,838	\$18,138,097	\$7,813,919
Average Cost of Fuel Purchased (¢/MBTU)	)							
Coal	-	-	-	-	318.61	-	313.31	309.40
Oil	-	-	2,019.14	-	-	-	1,873.25	2,001.71
Gas - CC	-	400.60	_	-	_	-	-	_
Gas - CT	_	-	10.04	-	_	381.17	-	_
Weighted Average	-	400.60	431.86	-	318.64	381.17	326.07	316.49
Cost of Fuel Burned (\$) Coal	_	_	_	_	\$2,295,142	_	\$22,085,960	\$1,072,295
Oil - CC	-	2,932			ΨΖ,ΣΟΟ, 1-72	_	Ψ22,000,000	Ψ1,072,200
Oil - CC Oil - Steam/CT		2,952	62.250	_				44 200
	18,441		63,359	-	17,641	48,800	574,759	44,399
Gas - CC	-	16,153,737	13,246,464	-	-	-	-	-
Gas - CT	23	-	556,593	-	-	862,838	-	-
Nuclear	-	-	-	3,974,406	-	-	-	-
Total	\$18,464	\$16,156,669	\$13,866,416	\$3,974,406	\$2,312,783	\$911,638	\$22,660,719	\$1,116,694
Average Cost of Fuel Burned (¢/MBTU)								
Coal	-	-	-	-	305.15	-	310.72	314.31
Oil - CC	-	1,745.31	-	-	-	-	-	-
Oil - Steam/CT	1,507.85	-	2,033.34	_	1,353.88	1,353.68	1,561.46	1,503.01
Gas - CC	-	400.60	-	-	, -	, -	, -	, -
Gas - CT	_	-	10.04	_	_	381.17	_	_
Nuclear	_	_	10.04	69.31	_	-	_	_
-	1 500 72	400.66	456.20				217.17	224 54
Weighted Average	1,509.73	400.66	456.20	69.31	306.97	396.41	317.17	324.51
Average Cost of Generation (¢/kWh)								
Coal	-	-	-	-	3.83	-	3.22	3.73
Oil - CC	-	15.91	-	-	-	-	-	-
Oil - Steam/CT	102.45	-	19.77	-	18.60	19.76	16.85	17.86
Gas - CC	-	2.90	3.28	-	-	-	-	-
Gas - CT	-	-	3.29	_	-	4.39	-	-
Nuclear	-	-	_	0.73	-	-	_	_
Weighted Average	923.20	2.90	3.30	0.73	3.85	4.58	3.29	3.86
Burned MBTU's								
Coal					752,130		7 107 906	341,161
	-	-	-	-	752,130	-	7,107,896	341,101
Oil - CC	-	168	-	-	-	-	-	-
Oil - Steam/CT	1,223	-	3,116	-	1,303	3,605	36,809	2,954
Gas - CC	-	4,032,346	(2,508,046)	-	-	-	-	-
Gas - CT	-	-	5,544,465	-	-	226,368	-	-
Nuclear	-	-	-	5,733,844	-	-	-	-
Total	1,223	4,032,514	3,039,535	5,733,844	753,433	229,973	7,144,705	344,115
Net Generation (mWh)								
Coal	-	-	-	-	59,943	-	686,140	28,718
Oil - CC	_	18	_	_	-	_	-	, -
Oil - Steam/CT	18	-	320	_	95	247	3,412	249
	10	-		_	95		5,412	243
Gas - CC	- (40)	556,853	403,266	-	-	-	-	-
Gas - CT	(16)	-	16,913	<b>-</b>	-	19,674	-	-
Nuclear	-	-	-	547,931	-	-	-	-
Hydro (Total System)								
Solar (Total System)								
Total	2	556,871	420,499	547,931	60,038	19,921	689,552	28,967
Cost of Reagents Consumed (\$)								
Ammonia	-	-	_	_	_	-	\$44,570	\$7,703
Limestone	_	_	_		79,492	_	701,334	44,285
	-	-	-	-	13,432	-	101,334	44,200
Re-emission Chemical	-	-	-	-	-	-	-	-
Sorbents	-	-	-	-	17,441	-	174,848	46,116
Urea -	-	-	-	-	75,746	-	-	
Total	_	_	_	_	172.678	_	920.752	98.103

Notes:

Total

Detail amounts may not add to totals shown due to rounding.

Schedule excludes in-transit, terminal and tolling agreement activity.

Cents/MBTU and cents/kWh are not computed when costs and/or net generation is negative.

Fuel cost information on this report does not reflect intercompany sharing of fuel-related merger savings between Duke Energy Carolinas and Duke Energy Progress.

172,678

920,752

98,103

Lee and Wayne oil burn is associated with inventory consumption shown on Schedule 6 for Wayne.

Cost of fuel oil received includes a transfer of inventory from retired units at Sutton to Mayo and Roxboro stations of \$194,328 and \$712,480, respectively.

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## Duke Energy Progress Fuel and Fuel Related Cost Report September 2017

					Conith France			
	Brunswick	Blewett	Wayne County	Darlington	Smith Energy Complex	Harris	Current	Total 12 ME
Description	Nuclear	CT	CT	CT	CC/CT	Nuclear	Month	September 2017
Cost of Fuel Purchased (\$)	Nuclear	O1	O1	O1	CG/C1	Nuclear	WOTH	September 2017
Coal							\$27,720,450	\$329,251,293
Oil	-	-	-	-	-	-	181,907	16,531,205
Gas - CC	-	-	-	-	10.075.400	-		
	-	-	-	475.070	18,975,480	-	48,375,681	568,314,655
Gas - CT	-	-	854,057	175,978	3,820,145	-	6,269,634	101,830,132
Total	-	-	\$854,057	\$175,978	\$22,795,625	\$0	\$82,547,672	\$1,015,927,285
A								
Average Cost of Fuel Purchased (¢/MBTU							040.70	040.00
Coal	-	-	-	-	-	-	312.76	313.96
Oil	-	-	-	-	-	-	1,470.43	1,271.34
Gas - CC	-	-	-	-	359.31	-	710.84	440.45
Gas - CT	-	-	351.93	423.49	357.62	-	88.02	311.82
Weighted Average	-	-	351.93	423.49	359.03	-	361.98	379.28
Cost of Fuel Burned (\$)								
Coal	-	-	-	-	-	-	\$25,453,397	\$296,157,254
Oil - CC	-	-	-	-	316	-	3,248	275,766
Oil - Steam/CT	-	8,092	3,149	-	-	-	778,640	18,500,204
Gas - CC	-	-	-	-	18,975,480	-	48,375,681	568,314,655
Gas - CT	-	-	854,057	175,978	3,820,145	-	6,269,634	101,830,132
Nuclear	8,967,818	-	-	-	-	4,675,225	17,617,449	195,704,329
 Total	\$8,967,818	\$8,092	\$857,206	\$175,978	\$22,795,941	\$4,675,225	\$98,498,049	\$1,180,782,340
Average Cost of Fuel Burned (¢/MBTU)								
Coal	-	-	-	-	-	-	310.36	309.11
Oil - CC	-	-	-	-	1,663.16	-	1,736.96	1,798.73
Oil - Steam/CT	-	1,668.45	1,749.44	_	-	-	1,567.47	1,400.63
Gas - CC	-	-	-	_	359.31	-	710.84	440.45
Gas - CT	_	-	351.93	423.49	357.62	_	88.02	311.82
Nuclear	63.05	-	-	-	-	65.45	65.01	64.78
Weighted Average	63.05	1,668.45	352.97	423.49	359.03	65.45	199.87	210.49
g.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Average Cost of Generation (¢/kWh)								
Coal	-	_	_	_	-	-	3.29	3.34
Oil - CC	-	-	-	_	15.80	-	15.90	51.42
Oil - Steam/CT	_	809.20	19.32	_	-	_	18.60	18.47
Gas - CC	_	-	-	_	2.53	_	2.83	3.03
Gas - CT	_	_	3.94	5.77	4.12	_	4.07	4.15
Nuclear	0.67	_		5.77		0.69	0.69	0.68
Weighted Average	0.67	809.20	3.95	6.11	2.71	0.69	1.88	1.99
Weighted Average	0.07	009.20	3.93	0.11	2.11	0.03	1.00	1.55
Burned MBTU's								
Coal							8,201,187	95,809,092
	-	-	-	-	- 10	-		
Oil - CC	-	-	-	-	19	-	187	15,331
Oil - Steam/CT	-	485	180	-	-	-	49,675	1,320,851
Gas - CC	-	-	-	-	5,281,090	-	6,805,390	129,030,900
Gas - CT	-	-	242,678	41,554	1,068,200	-	7,123,265	32,656,278
Nuclear	14,223,566	-	-	-	-	7,143,163	27,100,573	302,128,562
Total	14,223,566	485	242,858	41,554	6,349,309	7,143,163	49,280,277	560,961,014
Net Generation (mWh)								
Coal	-	-	-	-	-	-	774,802	8,868,756
Oil - CC	-	-	-	-	2	-	20	536
Oil - Steam/CT	-	1	16	(172)	-	-	4,186	100,162
Gas - CC	-	-	-	-	749,084	-	1,709,203	18,770,490
Gas - CT	-	-	21,694	3,050	92,769	-	154,083	2,456,034
Nuclear	1,336,508	-	-	-	-	674,279	2,558,718	28,626,694
Hydro (Total System)							27,257	418,793
Solar (Total System)							21,623	236,410
Total	1,336,508	1	21,710	2,878	841,855	674,279	5,249,892	59,477,875
Cost of Reagents Consumed (\$)								
Ammonia	-	-	-	-	\$23,180	-	\$75,453	\$1,895,887
Limestone	-	-	-	-	-	-	825,110	9,174,682
Re-emission Chemical	-	-	-	-	-	-	-	103,025
Sorbents	-	-	-	-	-	-	238,404	2,520,002
Urea	-	-	-	-	-	-	75,746	983,022
Total —					23 180		1 21/ 712	1/ 676 619

Total

23,180

1,214,712

14,676,618

## Duke Energy Progress Fuel & Fuel-related Consumption and Inventory Report September 2017

Sched	Jι	ıle	6	
Page	1	of	3	

Description	Weatherspoon	Lee	Sutton	Robinson	Asheville
Coal Data:					
Beginning balance	-	-	-	-	118,731
Tons received during period	-	-	-	-	35,149
Inventory adjustments	-	-	-	-	-
Tons burned during period	-	-	-	-	28,977
Ending balance	-	-	-	-	124,903
MBTUs per ton burned	-	-	-	-	25.96
Cost of ending inventory (\$/ton)	-	-	-	-	79.21
Oil Data:					
Beginning balance	623,545	-	3,109,002	78,040	3,048,635
Gallons received during period	-	-	(314,980)	-	-
Miscellaneous use and adjustments	-	-	-	-	(2,701)
Gallons burned during period	8,740	-	22,592	-	35,698
Ending balance	614,805	-	2,771,430	78,040	3,010,236
Cost of ending inventory (\$/gal)	2.11	-	2.80	2.55	1.86
Gas Data:					
Beginning balance	-	-	-	-	-
MCF received during period	-	3,871,949	2,922,070	-	218,714
MCF burned during period	-	3,871,949	2,922,070	-	218,714
Ending balance	-	-	-	-	-
Limestone/Lime Data:					
Beginning balance	-	-	-	-	7,394
Tons received during period	-	-	-	-	4,873
Inventory adjustments	-	-	-	-	-
Tons consumed during period	-	-	-	-	1,815
Ending balance	-	-	-	-	10,452
Cost of ending inventory (\$/ton)	-	-	-	-	42.49

#### Notes:

Detail amounts may not add to totals shown due to rounding.

Schedule excludes in-transit, terminal and tolling agreement activity.

Gas is burned as received; therefore, inventory balances are not maintained.

The oil inventory data for Wayne reflects the common usage of the oil tank used for both Wayne and Lee units.

Oil received includes a transfer from retired units at Sutton to Mayo and Roxboro stations of 67,500 gallons and 247,480 gallons, respectively.

## Duke Energy Progress Fuel & Fuel-related Consumption and Inventory Report September 2017

Schedule 6	
Page 2 of 3	

Description	Roxboro	Мауо	Brunswick	Blewett	Wayne County
Coal Data:					
Beginning balance	1,036,969	360,478	-	-	-
Tons received during period	215,245	96,257	-	-	-
Inventory adjustments	-	-	-	-	-
Tons burned during period	273,433	13,311	-	-	-
Ending balance	978,781	443,424	-	-	-
MBTUs per ton burned	26.00	25.63	-	-	-
Cost of ending inventory (\$/ton)	80.76	80.56	-	-	-
Oil Data:					
Beginning balance	331,927	197,952	178,205	782,522	11,981,450
Gallons received during period	329,677	74,946	-	-	-
Miscellaneous use and adjustments	(7,440)	(1,571)	-	-	-
Gallons burned during period	265,101	21,438	-	3,453	2,526
Ending balance	389,063	249,889	178,205	779,069	11,978,924
Cost of ending inventory (\$/gal)	2.17	2.07	2.55	2.34	2.41
Gas Data:					
Beginning balance	-	-	-	-	-
MCF received during period	-	-	-	-	232,988
MCF burned during period	-	-	-	-	232,988
Ending balance	-	-	-	-	-
Limestone/Lime Data:					
Beginning balance	100,660	16,426	-	-	-
Tons received during period	9,688	5,358	-	-	-
Inventory adjustments	43	-	-	-	-
Tons consumed during period	18,219	1,045	-	-	-
Ending balance	92,172	20,739	-	-	-
Cost of ending inventory (\$/ton)	35.78	39.75	-	-	-

## Duke Energy Progress Schedule 6 Fuel & Fuel-related Consumption and Inventory Report Page 3 of 3 September 2017

Description	Darlington	Smith Energy Complex	Harris	Current Month	Total 12 ME September 2017
Coal Data:					
Beginning balance	-	-	-	1,516,178	1,132,525
Tons received during period	-	-	-	346,651	4,133,132
Inventory adjustments	-	-	-	-	36,131
Tons burned during period	-	-	-	315,721	3,754,680
Ending balance	-	-	-	1,547,108	1,547,108
MBTUs per ton burned	-	-	-	25.98	25.52
Cost of ending inventory (\$/ton)	-	-	-	80.58	80.58
Oil Data:					
Beginning balance	9,884,871	8,137,486	284,804	38,638,439	38,890,788
Gallons received during period	-	-	-	89,643	9,422,487
Miscellaneous use and adjustments	-	-	-	(11,712)	(207,452)
Gallons burned during period	-	136	4,984	364,668	9,754,121
Ending balance	9,884,871	8,137,350	279,820	38,351,702	38,351,702
Cost of ending inventory (\$/gal)	2.36	2.32	2.55	2.35	2.35
Gas Data:					
Beginning balance	-	-	-	-	-
MCF received during period	40,225	6,110,709	-	13,396,655	156,143,969
MCF burned during period	40,225	6,110,709	-	13,396,655	156,143,969
Ending balance	-	-	-	-	-
Limestone/Lime Data:					
Beginning balance	-	-	-	124,480	91,506
Tons received during period	-	-	-	19,919	276,384
Inventory adjustments	-	-	-	43	(10,303)
Tons consumed during period	-	-	-	21,079	234,224
Ending balance	-	-	-	123,363	123,363
Cost of ending inventory (\$/ton)	-	-	-	37.02	37.02

# DUKE ENERGY PROGRESS ANALYSIS OF COAL PURCHASED SEPTEMBER 2017

STATION	ТҮРЕ	QUANTITY OF TONS DELIVERED	DELIVERED COST	DELIVERED COST PER TON
ASHEVILLE	SPOT	_	_	-
	CONTRACT	35,149	\$ 2,766,162	\$ 78.70
	ADJUSTMENTS	-	61,545	-
	TOTAL	35,149	2,827,707	80.45
MAYO	SPOT	-	-	_
	CONTRACT	96,257	7,504,705	77.97
	<b>ADJUSTMENTS</b>	-	102,178	-
	TOTAL	96,257	7,606,882	79.03
ROXBORO	SPOT	-	-	<u>-</u>
	CONTRACT	215,245	16,847,491	78.27
	ADJUSTMENTS	-	438,370	-
	TOTAL	215,245	17,285,861	80.31
ALL PLANTS	SPOT	-	-	_
	CONTRACT ADJUSTMENTS	346,651 	27,118,357 602,093	78.23 
	TOTAL	346,651	\$ 27,720,450	\$ 79.97

# DUKE ENERGY PROGRESS ANALYSIS OF COAL QUALITY RECEIVED SEPTEMBER 2017

STATION	PERCENT MOISTURE	PERCENT ASH	HEAT VALUE	PERCENT SULFUR
ASHEVILLE	5.90	9.96	12,625	2.03
MAYO	6.38	8.42	12,771	2.07
ROXBORO	6.25	8.34	12,816	2.03

# DUKE ENERGY PROGRESS ANALYSIS OF OIL PURCHASED SEPTEMBER 2017

		МАҮО	 МАҮО		ROXBORO	R	OXBORO	 SUTTON
VENDOR	Greenst	ooro Tank Farm	Sutton	Greer	nsboro Tank Farm		Sutton	Transfer
VENDOR	Orecrisi	JOIO TAIIK LAIIII	Sutton	Green	ISDOIO TAIIK LAITII		Sutton	Hansiei
SPOT/CONTRACT		Contract	Spot		Contract		Spot	Spot
SULFUR CONTENT %		0			0			0
GALLONS RECEIVED		7,446	67,500		82,197		247,480	(314,980)
TOTAL DELIVERED COST	\$	12,708	\$ 194,328	\$	139,756	\$	712,480	\$ (877,661)
DELIVERED COST/GALLON	\$	1.71	\$ 2.88	\$	1.70	\$	2.88	\$ 2.79
BTU/GALLON		138,000	138,000		138,000		138,000	138,000

Note:

Motor fuel taxes of \$295 for the Asheville station is excluded.

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## Duke Energy Progress Power Plant Performance Data Twelve Month Summary

October, 2016 - September, 2017 Nuclear Units

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Brunswick 1	8,137,355	938	99.03	97.75
Brunswick 2	7,139,222	932	87.44	90.24
Harris 1	7,510,487	928	92.39	90.15
Robinson 2	5,839,630	741	89.96	88.18

### Twelve Month Summary October, 2016 through September, 2017 Combined Cycle Units

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Lee Energy Complex	1A	1,319,601	219	68.76	76.03
Lee Energy Complex	1B	1,295,310	218	67.80	79.72
Lee Energy Complex	1C	1,273,819	219	66.32	76.50
Lee Energy Complex	ST1	2,428,476	379	73.16	80.82
Lee Energy Complex	Block Total	6,317,206	1,036	69.65	78.86
Richmond County CC	7	1,058,222	187	64.76	71.23
Richmond County CC	8	1,037,107	186	63.55	70.24
Richmond County CC	ST4	1,209,362	174	79.27	77.70
Richmond County CC	9	1,386,337	211	75.02	80.91
Richmond County CC	10	1,404,301	211	76.00	81.43
Richmond County CC	ST5	1,872,957	248	86.27	90.17
Richmond County CC	Block Total	7,968,286	1,217	74.76	79.85
Sutton Energy Complex	1A	1,376,882	221	71.09	82.25
Sutton Energy Complex	1B	1,420,190	221	73.33	84.21
Sutton Energy Complex	ST1	1,695,533	267	72.56	92.30
Sutton Energy Complex	Block Total	4,492,605	709	72.34	86.47

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

### Twelve Month Summary October, 2016 through September, 2017

### **Intermediate Steam Units**

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Mayo 1	1,556,762	744	23.87	84.23
Roxboro 2	1,715,039	673	29.10	97.48
Roxboro 3	2,238,420	697	36.64	93.41
Roxboro 4	1,298,729	710	20.88	73.74

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

### Twelve Month Summary October, 2016 through September, 2017 Other Cycling Steam Units

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Asheville	1	624,704	192	37.19	79.02
Asheville	2	632,484	192	37.65	81.61
Roxboro	1	863,533	380	25.95	96.20

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

### Twelve Month Summary October, 2016 through September, 2017 Combustion Turbine Stations

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Asheville CT	118,384	366	89.24
Blewett CT	-217	67	98.04
Darlington CT	84,777	896	87.28
Richmond County CT	1,753,823	905	91.59
Sutton CT	-357	75	96.34
Sutton Fast Start CT	37,853	90	87.24
Wayne County CT	494,077	951	96.52
Weatherspoon CT	-129	161	84.11

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

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## Twelve Month Summary October, 2016 through September, 2017 Hydroelectric Stations

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Blewett	79,006	27.0	77.51
Marshall	3,711	4.0	30.64
Tillery	115,017	84.0	92.93
Walters	221,059	113.0	99.08

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.